



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE Attorney Docket No. 003248.00038

In re U.S. Patent Application of MULLIGAN et al.)
Application No. 10/005,084)
Filed: December 4, 2001) Examiner: Unassigned
For: Aligned Composite Structures for Mitigation of Impact Damage and Resistance to Wear in Dynamic Environments	Art Unit: 1774
Assistant Commissioner for Patents Washington DC 20231	1>00

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 CFR §§1.97-1.98, applicants wish to make the following references of record in the above-identified application. Copies of the references cited below are enclosed. The references also are listed on the enclosed and completed Form PTO/SB/08A.

This Information Disclosure Statement is filed under 37 CFR §1.97(b) within three months of this application's filing date and/or before the mailing of a first Office Action on the merits. Accordingly, there is no fee due for filing this Information Disclosure Statement.

REFERENCES

U.S. Patents

1.	6,063,502	Sue, J. Albert, et al.	May 16, 2000
2.	5,645,781	Popovic', Dragan, et al.	July 8, 1997
3.	4,772,524	Coblenz, William S.	September 20, 1988

Foreign

1. WO 0153059 Goretta, Kenneth C., et al. July 26, 2001

Atty Docket: 003248.00038

Non-Patent Literature Documents

- 1. J.J. BRENNAN and K. M. PREWO, "High-Strength Silicon Carbide Fibre Reinforced Glass-Matrix Composites," J. Mater. Sci., 15 463-68 (1980).
- 2. J.J. BRENNAN and K. M. PREWO, "Silicon Carbide Fibre Reinforced Glass-Ceramic Matrix Composites Exhibiting High Strength and Toughness," *J. Mater. Sci.*, 17 2371-83 (1982).
- 3. G. HILMAS, et al., "Fibrous Monoliths: Non-Brittle Fracture from Powder-Processed Ceramics," *Mat. Sci. & Eng. A.*, 195, 263-268 (1995).
- 4. G.E. HILMAS, et al., "SiC and Si₃N₄ Fibrous Monoliths: Non-Brittle Fracture From Powder Processed Ceramics Produced by Coextrusion," Vol. 51 *Ceramic Processing Science and Technology*, pp. 609-14 (1993).
- 5. H. KODAMA, et al., "Silicon Carbide Monofilament-Reinforced Silicon Nitride or Silicon Carbide Matrix Composites," J. Am. Ceram. Soc., 72 [4] 551-58 (1989).
- 6. D. KOVAR, et al., "Fibrous Monolithic Ceramics" J. Am. Ceram. Soc., 80, [10] 2471-2487 (1997).
- 7. P.J. LAMICQ, et al., "SiC/SiC Composite Ceramics," Am. Ceram. Soc. Bull., 65 [2] 336-38 (1986).
- 8. T. I. MAH, et al., "Recent Developments in Fiber-Reinforced High Temperature Ceramic Composites," *Am. Ceram. Soc. Bull.*, 66 [2] 304-08 (1987).
- 9. K.M. PREWO, "Fiber-Reinforced Ceramics: New Opportunities for Composite Materials," Am. Ceram. Soc. Bull., 68 [2] 395-400 (1989).
- 10. J.R. STRIFE, et al., "Status of Continuous Fiber-Reinforced Ceramic Matrix Composite Processing Technology," Ceram. Eng. Sci. Proc., 11 [7-8] 871-919 (1990).

Respectfully submitted

Date: March 15, 2002

Julie B. Ackerman

Registration No. 50,867

BANNER & WITCOFF, LTD.

10 South Wacker Drive

Suite 3000

Chicago, Illinois 60606

Telephone: 312-715-1000

Facsimile: 312-715-1234

003248.00038

Under the Paperwork Reduction Act of 1995, no persons	U.S. Patent and Tro	Approved for use through 10/31/2002. OMB 0651-0031 ademark Office: U.S. DEPARTMENT OF COMMERCE n of information unless it contains a valid OMB control number.
stitute for form 1449A/PTO		Complete if Known
FORMATION DISCLOSURE	Application Number	10/005,084
ATEMENT BY APPLICANT	Filing Date	December 4, 2001
6	First Named Inventor	Mulligan
on (c)	Group Art Unit	1774
002 (ପିଞ୍ଚ as many sheets as necessary)	Examiner Name	Unassigned

Attorney Docket Number

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No.1	Document Number	Publication Date	Name of Patentee or Applicant of	_	
		Number - Kind Code ² (if known)	MM-DD-YYYY	Cited Document	Pages, Columns, Lines, Where Releva Passages or Relevant Figures Appear	
		US 6,063,502	May 16, 2000	Sue, et al.	v igaros / ppodi	
		US 5,645,781	July 8, 1997	Popovic', et al.		
		US 4,772,524	Sept. 20, 1988	Coblenz, William S.		

		FOREIGN PA Foreign Patent Document			Pages, Columns, Lines.		
Examiner Initials*	Cite No. ¹	Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T ₆	
		WO 01/53059 A1	7/26/2001	Goretta, et al.			
		OTHER PRIOR ART NON F	PATENT LITE	RATURE DOCUM	INTS		
Examiner Initials *	Cite No.1	Include name of the author (in CAPIT, the item (book, magazine, journal, se	AL LETTERS), rial, symposium	title of the article (who	en appropriate), title of	T²	
·	J. J. BRENNAN and K. M. PREWO, "High-Strength Silicon Carbide Fibre Reinforced Glass-Matrix Composites," J. Mater. Sci., 15 463-68 (1980) J.J. BRENNAN and K. M. PREWO, "Silicon Carbide Fibre Reinforced Glass-Ceramic Matrix Composites Exhibiting High Strength and Toughness," J. Mater. Sci., 17 2371-83 (1982)						
	G. HILMAS, et al., "Fibrous Monoliths: Non-Brittle Fracture from Powder-Processed Ceramics," <i>Mat. Sci. & Eng. A.</i> , 195, 263-268 (1995)						
		G.E. HILMAS, et al., "SiC and Si ₃ N ₄ Fibrous Monoliths: Non-Brittle Fracture From Powder Processed Ceramics Produced by Coextrusion," Vol. 51 Ceramic Processing Science and Technology, pp. 609-14 (1993)					
	H. KODAMA, et al., "Silicon Carbide Monofilament-Reinforced Silicon Nitride or Silicon Carbide Matrix Composites," J. Am. Ceram. Soc., 72 [4] 551-58 (1989)					^	
		D. KOVAR, et al., "Fibrous Monolithic Ceramics" J. Am. Ceram. Soc., 80, [10] 2471-2487 (1997)					
· <u></u>	T.I. MAH, et al., "Recent Developments in Fiber-Reinforced High Temperature Ceramic Composites," Am. Ceram. Soc. Bull., 66 [2] 304-08 (1987)					MAR	
		K.M. PREWO, "Fiber-Reinforced Ceramics: New Opportunities for Composite Materials," Am. Ceram. Soc. But., 68 [2] 395-400 (1989)					
		J.R. STRIFE, et al., "Status of Continuous Fiber-Reinforced Ceramic Matrix Composite Processing Technology," Ceram. Eng. Sci. Proc., 11 [7-8] 871-919 (1990)					

Examiner Date Signature Considered

of

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

¹ Applicant's unique citation designation number (optional) . ² See Kinds Codes of USPTO Patent Documents at <u>www.uspto.gov</u> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.